

Listing of Claims:

1. (Previously Amended) A method for converting messaging data into a relation table format in a database system, the messaging data being within a messaging system, the method comprising the steps of:

(a) providing a plurality of table formatting specifications;

(b) utilizing the plurality of table formatting specifications to automatically build and store a table function in the database system; and

(c) invoking the table function from within the database system through a single database language statement, the table function

(c1) invoking at least one messaging function within the database system to access the messaging data;

(c2) converting the messaging data into relational table format according to the plurality of table formatting specifications, and

(c3) directly populating a relational table within the database system with the converted messaging data.

2. (Cancelled)

3. (Previously Amended) The method of claim 1, wherein the table function and the at least one messaging function are user-defined functions within the database system.

4. (Previously Amended) The method of claim 1, wherein the at least one messaging

function retrieves and reads the messaging data in the message system.

5. (Original) The method of claim 1, wherein the providing step (a) further includes the step of:

(a1) reading the plurality of table formatting specifications from a file.

6. (Original) The method of claim 1, wherein the providing step (a) further includes the steps of:

(a1) selecting a name and a type for the table function, wherein the type includes one of a retrieve function and a read function;

(a2) specifying where the table function is to be stored; and

(a3) indicating where the messaging data resides.

7. (Original) The method of claim 6, wherein the specifying step (a2) further includes the steps of:

(a2i) providing a database name and access information; and

(a2ii) allowing the user to validate the access information.

8. (Original) The method of claim 6, wherein the indicating step (a3) further includes the step of:

(a3i) providing a service point name for the messaging data.

9. (Original) The method of claim 6, wherein the indicating step (a3) further includes

the step of:

(a3i) providing a system default endpoint for the messaging data.

10. (Original) The method of claim 1, wherein the providing step (a) further includes the step of:

(a1) providing formatting information about the messaging data.

11. (Previously Presented) The method of claim 10, wherein the providing step (a1) further includes the step of:

(a1i) designating a delimiter character, wherein the delimiter character separates the messaging data into column data.

12. (Previously Amended) The method of claim 11, wherein the converting step (c2) further includes the step of:

(c2i) invoking a parser function within the database system to parse the delimited messaging data.

13. (Previously Amended) The method of claim 12, wherein the invoking step (c2i) further includes the steps of:

(c2iA) checking for the parser function within the database system;

(c2iB) building the parser function if it does not exist within the database system;

and

(c2iC) registering the parser function ~~to~~ in the database system after it is built to

allow other table functions to invoke the parser function.

14. (Original) The method of claim 10, wherein the providing step (a1) further includes the step of:

(a1i) specifying a fixed-length format by indicating a position and length of each column.

15. (Previously Amended) The method of claim 10, wherein the providing step (a) further includes the step of:

(a2) allowing a user to view the messaging data in the messaging system to verify the formatting information provided before building the table function.

16. (Original) The method of claim 1, wherein the messaging data comprises a message string, the message string including a plurality of substrings, wherein each substring represents data that is returned as a column in a table.

17. (Original) The method of claim 16, wherein the providing step (a) further includes the step of:

(a1) defining a column for each substring of the plurality of substrings in the message string.

18. (Original) The method of claim 17, wherein the defining step (a1) further includes the steps of:

(a1i) naming each column; and

(a1ii) designating a data type for each column.

19. (Previously Amended) The method of claim 18, wherein the defining step (a1) further includes the step of:

(a1iii) allowing the user to view the messaging data formatted according to the column definitions provided before building the table function.

20. (Cancelled)

21. (Previously Amended) The method of claim 20, wherein the converting step (c2) further includes the steps of:

(c2i) parsing the message string into the plurality of substrings; and

(c2ii) converting each substring into the designated data type corresponding to its column.

22. (Original) The method of claim 1, wherein the providing step (a) further includes the step of:

(a1) allowing a user to create and name a table view based on the table formatting specifications.

23. (Previously Amended) The method of claim 22, wherein the invoking step (c1) further includes the step of:

(c1i) selecting messaging data from the table view.

24. (Original) The method of claim 1, wherein the providing step (a) further includes the step of:

(a1) allowing a user to review a summary of the table formatting specifications before building the table function.

25-90. (Cancelled)

91. (Previously Presented) The method of claim 1, wherein the single database language statement is a single structured query language (SQL) statement.

92. (Previously Presented) The method of claim 24, wherein the allowing step (a1) further includes the step of:

(a1i) allowing the user to view the table formatting specifications as database language statements before building the table function.